

## Why Japan Will Stay Nuclear

This blog post was first posted to the International Centre for Security Analysis blog on the 23rd February 2015.

When following Japanese domestic politics it can feel as if the future of the Japanese nuclear energy industry is driven personally by Prime Minister Shinzo Abe. The hawkish Abe can be seen as being consistently rightwing from his attempted [revisions of Japan's pacifist constitution](#) to controversy about the role of [comfort women in WWII](#). Therefore, it is perhaps tempting to view Abe's support of the nuclear industry through this prism.

However, Japan, famously, is a land gifted with few natural resources. It imports nearly all its raw materials, including its hydrocarbons: Japan is the world's largest importer of liquid natural gas, second largest in coal and third in oil. Japan does have [some renewable energy potential](#), but is in [no position for renewables to take up the slack](#) from its other energy sectors.

Japan contains almost no uranium, thorium or phosphates, so its nuclear fuel also needs to be imported. However, 1 kg of uranium may generate as much energy as 10 tons of oil; meaning fuel can be stockpiled. Japan has the full fuel nuclear cycle, from enrichment to reprocessing, meaning, unlike all other states that do not possess nuclear weapons, it would not have to export fuel services to run its reactors (although it does regularly at the moment). It also has a vast strategic stockpile of plutonium: a staggering [47 tons](#) which is intended to be used in recycled J-MOX nuclear fuel and in as-yet undeveloped generation IV reactors.

From mainland Asia to the Pacific, Japan is surrounded by 4 nuclear powers, of which only the United States can be considered a friend. More importantly can Japan continue to guarantee control the sea-lanes that are so vital to its import-driven energy sector? The supremacy of the maritime self-defence forces, even to the rapidly growing Chinese navy, is [currently not in question](#). We should also not underestimate the continued influence of the US Navy. But, we will soon see a blue-water Chinese navy, with the

ability to project power globally. Critically for Japan, China will also continue to assert its claim to the entire South-China Sea and as a consequence control of traffic from straits of Malacca: the second largest sea lane by volume for oil in the world and the principal route for Japan's Middle Eastern oil imports. Vast expanses of open water also exist between Japan and its other energy suppliers.

The nature of the Sino-Japanese affairs in the middle of the 21<sup>st</sup> century is an open question, but an increasingly fractured relationship could prove to be problematic for Japanese energy security. Russia provides an alternative for Japanese hydrocarbon supplies. Putin and Abe have met [multiple times](#) in Abe's current term; but knowingly after emergence of the crisis in the Ukraine crisis Japan's response was very [firmly in the Western bloc](#). Japanese policy clearly prioritises the moral high-ground in any future Chinese seizure of the Senkaku/Diaoyudao Islands over a cosy relationship with Russia.

The Fukushima disaster occurred while the country was governed by the DJP, usually perennial opposition in the near single party rule of the LDP since the Treaty of San Francisco. Immediately after Fukushima it seemed Japan was ready to [abandon nuclear power altogether](#). The DJP administration, at the time, attempted to shut down the massive reprocessing plant Rokkasho-Mura in Aomori prefecture; a relatively poor and remote province at the north of Honshu. The Aomori residents immediately responded: if the plant was to be closed the stored nuclear fuel there, essentially the bulk of Japanese nuclear waste since the beginning of the Japanese nuclear program, would have to be [sent back](#) to the provinces it came from. Quickly realising the national opposition this was likely to arouse, Prime Minister Noda balked, and the closure of the as-yet unfinished reprocessing plant was averted.

Ultimately, it will not be the lack of political will that decides Japan's nuclear future; but the cold, hard, realist logic of ensuring a secure energy supply during the century that appears to be defined already by a rising China. That means after the national soul searching in the wake of Fukushima Japanese policy makers will invariably come back to nuclear power.